EAST Search History

EAST Search History (Prior Art)

| Ref# | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|------|------|--|---|---------------------|---------|---------------------|
| L1 | 4 | (427/421.1.ccls.) and jet\$5 and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) with (fill\$3) and (impact\$3 or hammer\$3 or plung\$3 or stroke) and @PY< "2005" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 14:29 |
| L3 | 0 | (427/421.1.ccls.) and jet\$5 and impact\$3 with (hammer\$3 or plung\$3 or stroke) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 14:30 |
| L4 | 1038 | 427/421.1.cds. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 14:30 |
| L5 | 259 | 427/421.1.ccls. and jet\$4 | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 14:31 |
| L6 | 128 | 427/421.1.ccls. and jet\$4 and drop\$3 | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 14:31 |

| L7 | 154 | 427/421.1.cds. and jet\$4 and drop\$4 | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 14:31 |
|------------|------|---|---|-----|----|---------------------|
| S1 | 693 | 427/595.cds. | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/03/27 16:35 |
| S 2 | 1833 | 427/595.cds. OR 427/596.cds. OR 427/597.cds. OR 427/592.cds. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/03/27 16:36 |
| S 6 | 315 | 427/597.ccls. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/03/27 16:44 |
| \$7 | 0 | 427/597.cds. intensity | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/03/27 16:44 |
| S8 | 3 | US-2002/0071772-A1.did. OR "6450416".pn. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/03/27 17:45 |
| S9 | 2 | US-20020071772-\$.did. | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ÖN | 2008/03/27 17:48 |

| S10 | 1 | ("2002/0071772").URPN. | USPAT | ADJ | ON | 2008/03/27 17:51 |
|-----|-------|---|---|-----|-----|---------------------|
| S11 | 4 | (("5819983") or ("5564606") or ("2976392")).PN. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2008/03/27 17:58 |
| S12 | 35439 | syringe.ab. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/03/31 10:17 |
| S13 | 248 | ((viscous OR viscosity) NEAR5 syringe).ab. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/03/31 10:18 |
| S14 | 248 | ((viscous OR viscosity) NEAR5 syringe).ab. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/03/31 10:18 |
| S15 | 248 | ((viscous OR viscosity) NEAR5 syringe).ab. | US PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/03/31 10:19 |
| S16 | 2 | (("4661368") or ("4762578")).PN. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2008/04/14 14:04 |

| S17 | 2 | (("4661368") or ("4762578") or ("4661368")).PN. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2008/04/14 14:07 |
|------|-----|---|---|-----|-----|---------------------|
| S18 | 2 | (("4661368") or ("4762578")).PN. | US PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2008/04/14 14:08 |
| S19 | 37 | ("3143041" "3809308" "4485387" "4661368"). PN. OR ("4762578").URPN. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2008/04/14 14:09 |
| S20 | 1 | ("5320250").FN. | US PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2008/04/14 14:21 |
| \$21 | 2 | ("0368428").FN. | US PGPUB; USPAT; USOCR; EPO; JPO | OR | ÖFF | 2008/04/14 14:43 |
| S22 | 7 | (("6368428") or ("5368428") or ("4368428") or ("3368428") or ("1368428") or ("1368428")).PN. | US PGPUB; USPAT; USOCR; EPO; JPO | OR | ÖFF | 2008/04/14 14:44 |
| S23 | 7 | (("7368428") or ("6368428") or ("5368428") or ("4368428") or ("3368428") or ("1368428") or ("1368428") or ("1368428") or ("1368428") | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2008/04/14 14:44 |
| S24 | 333 | ("3329347" "3485417" "3690518" "3811601" "3936030" "4050613" "4264214" "4334637" "4437488" "4465212" "4480749" "4488665" "4531679" "4572103" "4661368" "4684956" "4710399" "4711379" "4736704" "4762578" "4784582" "4896085" "4951917" "4962871" "4967933" "4985715" "5022629" "5054650" "5074443" "5221025" "5320250").FN. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2008/04/14 15:52 |

| \$25 | 59 | ("2880764" "2898860" "3851801" "3950761" "4030640" "4294581" "4550325" "4692351" "4711379" "4935261" "4974754" "5110615" "5154319" "5195656" "5234134").PN. OR ("5320250").URPN. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2008/04/14 15:52 |
|------|-----|--|---|-----|----|---------------------|
| \$26 | 200 | jet soldering | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/14 16:13 |
| \$27 | 0 | jet soldering AND vary volume | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/14 16:14 |
| \$28 | 0 | jet soldering AND vary drop | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/14 16:14 |
| \$29 | 23 | jet soldering AND vary | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/14 16:14 |
| S30 | 37 | jet soldering AND size | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/14 16:15 |
| S31 | 0 | "222"/("55" or "56" OR "57").OOLS. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/15 18:13 |

| S32 | 1697 | (222/55 OR 222/56 OR 222/57).CCLS. | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/15 18:14 |
|------------|------|---|---|-----|----|---------------------|
| S33 | 7 | S32 AND (DROP OR DROPLET) VOLUME | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/15 18:15 |
| S34 | 161 | S32 AND (DROP OR DROPLET) and SIZE and (DIFFERENT or VARYING) | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/15 18:34 |
| \$35 | 6 | S32 AND (DROP OR DROPLET) NEARS SIZE NEARS (DIFFERENT or VARYING) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/15 18:34 |
| S36 | 3 | US2002/0071772.did. OR WO0232201.did. OR "6450416".pn. | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/21 08:52 |
| S37 | 6 | US-20020071772-\$.did. OR WO-0232201-\$.did. OR "6450416",pn. | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/21 08:53 |
| \$38 | 10 | US-20020071772-\$.did. OR WO-0232201-\$.did. OR "6450416",pn. OR JP-2001217529-\$.did. OR JP-2001046940-\$.did. | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/21 08:56 |

| S39 | 0 | *222*" .*" 596" .ccls. | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/21 09:04 |
|-----|----|---------------------------------|---|-----|-----|---------------------|
| S40 | 72 | 222/596.cds. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/21 09:04 |
| S41 | 1 | ("4967933").FN. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2008/04/21 09:35 |
| S42 | 26 | ("4967933").URPN. | USPAT | ADJ | ON | 2008/04/21 09:37 |
| S43 | 1 | ("5913455").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2008/04/22 15:10 |
| S44 | 1 | ("5564606").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2008/04/22 16:00 |
| S45 | 5 | "222".clas. AND impact velocity | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 16:49 |
| S46 | 63 | "222".clas. AND feeding rate | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 16:50 |

| S47 | 90500 | "222".clas. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 16:51 |
|-----|--------|--|---|-----|----|---------------------|
| S48 | 137828 | "222".clas. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 16:51 |
| S49 | 7 | "222".clas. AND impact velocity | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 16:52 |
| S50 | 137925 | "222".clas. OR "239".clas. AND impact velocity | US PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 16:53 |
| S51 | 104 | ("222".clas. OR "239".clas.) AND impact velocity | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 16:53 |
| S52 | 3393 | jetting AND nozzle AND clean | US PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 17:17 |

| S53 | 276 | jetting AND nozzle AND (clean OR cleaning OR remove) NEAR5 (residue OR overflow) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 17:18 |
|-----|-----|---|---|-----|----|---------------------|
| S54 | 58 | jetting AND nozzle AND (dean OR cleaning OR remove) NEAR5 (residue OR overflow) SAME (gas OR gaseous OR air OR blow OR blast) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 17:19 |
| S55 | 28 | HOLM-WILLIAM.in. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 17:22 |
| S56 | 0 | HOLM,WILLIAM.in. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 17:22 |
| S57 | 0 | William-HOLM.in. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 17:22 |
| S58 | 0 | (William HOLM).in. | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 17:23 |

| S59 | 777 | (HOLM, william).in. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 17:23 |
|-----|------|---|---|-----|-----|---------------------|
| S60 | 3253 | HOLM.in. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 17:23 |
| S61 | 777 | (william SAME HOLM).in. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/22 17:26 |
| S62 | 10 | (("4,004,733") or ("4,200,232") or ("5,048,454") or ("5,988,526") or ("6,663,225") or ("4,857,367") or ("5,129,579") or ("6,270,019") or ("5,447,254") or ("4,970,985")).PN. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2008/04/22 17:52 |
| S63 | 11 | (("4,004,733") or ("4,200,232") or ("5,048,454") or ("5,988,526") or ("6,663,225") or ("4,857,367") or ("5,129,579") or ("6,270,019") or ("5,447,254") or ("4,970,985") or ("6450416")).PN. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2008/04/23 08:45 |
| S64 | 9 | ("3747155" "4093123" "4563840" "4600149" "4733428" "4832752" "5147087" "5464390" "5756155").PN. OR ("5988526").URPN. | US-PGPUB; USPAT; USOCR | ADJ | ON | 2008/04/23 08:56 |
| S65 | 3 | "5338360" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/23 09:54 |

| S66 | 24 | nillson.in. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/23 09:55 |
|-----|------|--|---|-----|----|---------------------|
| S67 | 6953 | nilsson.in. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/23 09:55 |
| S68 | 0 | kenth nilsson.in. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/23 09:55 |
| S69 | 0 | kenth.in. nilsson.in. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/23 09:55 |
| S70 | 0 | (kenth nilsson) .in. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/23 09:56 |
| S71 | 107 | (nilsson, kenth).in. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/23 09:56 |
| S72 | 41 | (BERG, JOHAN).in. OR (KRONSTEDT, JOHAN).in. OR (SANDELL, HAKAN).in. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/23 09:59 |

| S73 | 47 | ("3329347" "3485417" "3690518" "3811601" "3936030" "4050613" "4264214" "4334637" "4437488" "4465212" "4480749" "4488665" "4531679" "4572103" "4661368" "4684956" "4710399" "4711379" "4736704" "4762578" "4784582" "4896085" "4951917" "4962871" "4967933" "4985715" "5022629" "5054650" "5074443" "5221025" "5320250").PN. OR | US PGPUB; USPAT; USOCR | ADJ | ON | 2008/04/23 |
|-----|------|--|---|-----|-----|---------------------|
| S74 | 31 | nozzle velocity AND splash | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/04/23 16:13 |
| S75 | 8 | (("4,266,232") or ("5,320,250") or ("5,495,270") or ("5,581,286") or ("5,747,102") or ("5,876,615") or ("6,029,896") or ("6,126,263")).PN. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2008/04/23 18:44 |
| S76 | 1956 | 427/595.cds. OR 427/596.cds. OR 427/597.cds. OR 427/592.cds. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 17:18 |
| S77 | 328 | 427/597.cds. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 17:18 |
| S78 | 1709 | (222/55 OR 222/56 OR 222/57).COLS. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 17:18 |

| S79 | 73 | 222/596.cds. | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; JBM_TDB | ADJ | ON | 2008/12/23 17:18 |
|------|-------|---------------------|---|-----|----|---------------------|
| \$80 | 3738 | \$76 \$77 \$78 \$79 | US-PCPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/12/23 17:18 |
| S81 | 91590 | "222".das. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 17:18 |
| S82 | 0 | 222/14-22.clas. | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 17:19 |
| \$83 | 942 | 222/14-22.cds. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 17:19 |
| \$84 | 2559 | 222/591-603.cds. | US-PCPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 17:21 |
| \$85 | 16 | jet\$4 and S83 | US-PCPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 17:23 |

| S86 | 0 | (vary\$3 or chang\$3 or adjust\$3 or control\$4) neaer3 volume | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 17:30 |
|-----|--------|--|---|-----|----|---------------------|
| S87 | 229772 | (vary\$3 or chang\$3 or adjust\$3 or control\$4) near3 volume | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 17:30 |
| S88 | 153 | (S83 or S84) and S87 | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 17:31 |
| S89 | 130 | (S83 or S84) and S87 and @PY<"2005" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 17:31 |
| S90 | 133 | (S83 or S84) and S87 and @PY<"2006" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 17:31 |
| S91 | 16 | (\$83 or \$84) and \$87 and @PY<"2006" and jet\$5 | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 17:31 |
| S92 | 11948 | (vary\$3 or chang\$3 or adjust\$3 or control\$4) near3 (size or volume or diameter) with (drop\$3 or blob) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 18:12 |

| S93 | 2144 | 239/435,445,4,13,128,133,134,102.2.cds. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 18:13 |
|-----|------|--|---|-----|----|---------------------|
| S94 | 0 | 222/251+.ccls. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 18:13 |
| S95 | 747 | 73/863.01-863.03.cds. | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 18:14 |
| S96 | 129 | S92 and (S93 or S95 or S90 or S84) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 18:16 |
| S97 | 91 | S92 and (S93 or S95 or S80 or S84) and @PY<"2005" | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 18:16 |
| S98 | 31 | S92 and (S93 or S95 or S80 or S84) and (viscous or solder) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 18:16 |
| S99 | 1974 | S92 and (viscous or solder) | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 18:46 |

| S100 | 926 | (fill\$3 or replac\$3 or replenish\$3) near3 (size or volume or diameter) with (drop\$3 or blob) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 18:47 |
|------|-------|--|---|-----|----|---------------------|
| S101 | 1 | \$100 and (\$93 or \$95 or \$80 or \$84) and (viscous or solder) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/23 18:47 |
| S102 | 11948 | (vary\$3 or chang\$3 or adjust\$3 or control\$4) near3 (size or volume or diameter) with (drop\$3 or blob) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/24 13:32 |
| S103 | 220 | \$102 and "222".das. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/24 13:32 |
| S104 | 1956 | 427/595.cds. OR 427/596.cds. OR 427/597.cds. OR 427/592.cds. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/24 13:32 |
| S105 | 328 | 427/597.cds. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/24 13:32 |
| S106 | 1709 | (222/55 OR 222/56 OR 222/57).CO.LS. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/24 13:32 |

| S107 | 73 | 222/596.ccls. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/24 13:32 |
|------|------|---|---|-----|----|---------------------|
| S108 | 3738 | S104 S105 S106 S107 | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ÖN | 2008/12/24 13:32 |
| S109 | 2559 | 222/591-603.cds. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/24 13:32 |
| S110 | 2144 | 239/435,445,4,13,128,133,134,102.2.ccls. | US-PCPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/24 13:32 |
| S111 | 747 | 73/863.01-863.03.ccls. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/24 13:32 |
| S112 | 31 | S102 and (S110 or S111 or S108 or S109) and (viscous or solder) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/24 13:32 |
| S113 | 200 | S102 and "222".clas. not S112 | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/24 13:32 |

| S114 | 143 | S102 and "222".das. not S112 and @PY< "2004" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2008/12/24 13:33 |
|------|------|---|---|-----|----|---------------------|
| S115 | 2 | "US 20050167519" | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | ON | 2009/07/07 16:18 |
| S116 | 1 | 2004-143680.NRAN. | DERWENT | ADJ | ON | 2009/07/07 16:19 |
| S117 | 1 | 2004-143680.NRAN. | DERWENT | ADJ | ON | 2009/07/07 16:41 |
| S118 | 60 | B05D1/26.ipc. | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | ON | 2009/07/07 17:00 |
| S119 | 27 | B05D1/26.ipc. and jet\$5 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | ÖN | 2009/07/07 17:02 |
| S120 | 2355 | B05B17/06.ipc. or B05C5/00.ipc. or B05D3/00.ipc. or B23K1/00.ipc. or B23K3/06.ipc. or H05K3/34.ipc. | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | ON | 2009/07/07 17:11 |
| S121 | 272 | S120 and jet\$5 and drop\$4 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | ON | 2009/07/07 17:12 |
| S122 | 9171 | B05B17/06.ipc. or B05C5/00.ipc. or B05D3/00.ipc. or B23K1/00.ipc. or B23K3/06.ipc. or H05K3/34.ipc. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/03 14:00 |

| S123 | 328 | S122 and jet\$5 and drop\$4 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | ON | 2010/03/03 14:01 |
|------|-------|--|---|-----|----|---------------------|
| S125 | 154 | S122 and jet\$5 and drop\$4 and @PY<"2008" | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | ON | 2010/03/03 14:03 |
| S126 | 21627 | "347".clas. AND (DROP OR DROPLET) and SIZE and (DIFFERENT or VARYING) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 13:33 |
| S127 | 4883 | "347".clas. and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) near3 (size or volume or diameter) with (drop\$3 or blob) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 13:35 |
| S128 | 1528 | "347".clas. and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) near3 (size or volume or diameter) with (drop\$3 or blob) and (impact\$3 or hammer\$3 or plung\$3 or stroke) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 13:36 |
| S129 | 761 | "347".clas. and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) near3 (size or volume or diameter) with (drop\$3 or blob) and (impact\$3 or hammer\$3 or plung\$3 or stroke) and @PY<"2005" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 13:36 |
| S130 | 16 | 347/6,7.cds. and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) near3 (size or volume or diameter) with (drop\$3 or blob) and (impact\$3 or hammer\$3 or plung\$3 or stroke) and @PY<"2005" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 13:44 |

| S131 | 100 | 347/6,7.cds. and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) near3 (size or volume or diameter) with (drop\$3 or blob) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 13:44 |
|------|------|--|---|-----|-----|---------------------|
| S132 | 396 | 347/15.cds. and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) near3 (size or volume or diameter) with (drop\$3 or blob) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 14:05 |
| S133 | 1605 | 347/15.cds. | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 14:06 |
| S134 | 63 | 347/15.cds. and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) near3 (size or volume or diameter) with (drop\$3 or blob) and (impact\$3 or hammer\$3 or plung\$3 or stroke) and @PY<"2005" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 14:07 |
| S135 | 1 | ("4,499,479").PN. | USPAT; USOCR | OR | OFF | 2010/03/04 14:43 |
| S136 | 241 | 347/54-72.ccls. and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) near3 (size or volume or diameter) with (drop\$3 or blob) and (impact\$3 or hammer\$3 or plung\$3 or stroke) and @PY<"2005" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 14:53 |
| S137 | 226 | 347/54-72.cds. and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) near3 (size or volume or diameter) with (drop\$3 or blob) and (impact\$3 or hammer\$3 or plung\$3 or stroke) and @PY<"2005" not \$134 | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 14:54 |

| S138 | 572 | "347".das. and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) with (fill\$3) and (impact\$3 or hammer\$3 or plung\$3 or stroke) and @PY< "2005" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 14:56 |
|------|-----|---|---|-----|----|---------------------|
| S139 | 390 | "347".clas. and (vary\$3 or chang\$3 or adjust\$3 or control\$4) with (fill\$3) and (impact\$3 or hammer\$3 or plung\$3 or stroke) and @PY< "2005" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 14:56 |
| S140 | 410 | 417/322,469.ccls. | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 15:58 |
| S141 | 341 | 417/322,469.ccls. and @PY<"2004" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 15:58 |
| S142 | 7 | 417/322,469.ccls. and (vary\$3 or chang\$3 or adjust \$3 or control\$4 or large\$2 or smalle\$2) near3 (size or volume or diameter) with (drop\$3 or blob) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/04 15:58 |
| S143 | 348 | "118".clas. and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) with (fill\$3) and (impact\$3 or hammer\$3 or plung\$3 or stroke) and @PY< "2005" | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 12:05 |
| S144 | 75 | \$3) and (impact\$3 or hammer\$3 or plung\$3 or stroke) and @PY<"2005" | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 12:08 |

| S145 | 0 | "independent of the piston stroke" | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 12:13 |
|------|-------|--|---|-----|----|---------------------|
| S146 | 13387 | "piston stroke" | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 12:13 |
| S147 | 11 | maruyama.in. and "piston stroke" | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 12:13 |
| S148 | 479 | "347".clas. and jet\$5 and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) with (fill \$3) and (impact\$3 or hammer\$3 or plung\$3 or stroke) and @PY<"2005" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 12:35 |
| S149 | 33 | 347/19,68,84+.ccls. and jet\$5 and (vary\$3 or chang \$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) with (fill\$3) and (impact\$3 or hammer\$3 or plung\$3 or stroke) and @PY<"2005" | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 12:36 |
| S150 | 43 | (427/595-597,592.cds. or 222/55-57,14-22,591-603. cds. or 239/435,445,4,13,128,133,134,102.2.cds. or 73/863.01-863.03.cds. or 417/322,469.cds.) and jet \$5 and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) with (fill\$3) and (impact\$3 or hammer\$3 or plung\$3 or stroke) and @PY<"2005" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 12:43 |

| \$151 | 46 | (427/595-597,592.cds. or 222/55-57,14-22,591-603. cds. or 239/435,445,4,13,128,133,134,102.2.cds. or 73/863.01-863.03.cds. or 417/322,469.cds. or 118/211,696.cds.) and jet\$5 and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) with (fill\$3) and (impact\$3 or hammer\$3 or plung\$3 or stroke) and @PY<"2005" | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 12:46 |
|-------|------|---|---|-----|----|---------------------|
| S152 | 79 | (427/595-597,592.cds. or 222/55-57,14-22,591-603. cds. or 239/435,445,4,13,128,133,134,102.2.cds. or 73/863.01-863.03.cds. or 417/322,469.cds. or 118/211,696.cds. or 347/19,68,84+.cds.) and jet\$5 and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) with (fill\$3) and (impac\$3 or hammer\$3 or plung\$3 or stroke) and @PY<"2005" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 12:54 |
| \$153 | 38 | (427/595-597,592.cds. or 222/55-57,14-22,591-603. cds. or 239/435,445,4,13,128,133,134,102.2.cds. or 73/863.01-863.03.cds. or 417/322,469.cds. or 118/211,696.cds. or 347/19,68,84+.cds.) and jet\$5 and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) with (fill\$3) and (impac\$3 or hammer\$3 or plung\$3 or stroke) and @PY<"2005" not (\$144 or \$149) | US PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 12:55 |
| \$154 | 0 | (427/595-597,592.cds. or 222/55-57,14-22,591-603. ccls. or 239/435,445,4,13,128,133,134,102.2.cds. or 73/863.01-863.03.cds. or 417/322,469.cds. or 118/211,696.cds. or 347/19,68,84+.cds.) and jet\$5 and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) with (fill\$3) and (impac\$3 or hammer\$3 or plung\$3 or stroke) and @PY<"2005" not (\$144 or \$149 or \$152) | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 12:55 |
| S155 | 2290 | "L14" not "L15" | US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ | ON | 2010/03/10 13:09 |

| S156 | 16 | ("4106032" "4514742" "4621268" "6770320" | US-PGPUB; | ADJ | ON | 2010/03/10 |
|------|----|--|--------------|-----|----|------------|
| | | "6820973" "6860976" "7059538").PN. | USPAT; FPRS; | | | 13:37 |
| | | | EPO; JPO; | | | |
| | | | DERWENT; | | | |
| | | | IBM_TDB | | | |

EAST Search History (Interference)

| Ref# | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|------|------|---|--------------------|---------------------|---------|---------------------|
| L2 | 0 | (427/421.1.cds.) and jet\$5 and impact\$3 with (hammer \$3 or plung\$3 or stroke) | US-PGPUB; USPAT | ADJ | ON | 2010/03/10 14:30 |
| S157 | 147 | (427/595-597,592.ccls. or 222/55-57,14-22,591-603.ccls. or 239/435,445,4,13,128,133,134,102.2.ccls. or 73/863.01-863.03.ccls. or 417/322,469.ccls. or 118/211,696.ccls. or 347/19,68,84+.ccls.) and jet\$5 and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) with (fill\$3) and (impact\$3 or hammer\$3 or plung\$3 or stroke) | US-PGPUB; USPAT | ADJ | ON | 2010/03/10 12:56 |
| S158 | 68 | (427/595-597,592.cds. or 222/55-57,14-22,591-603.cds. or 239/435,445,4,13,128,133,134,102.2.cds. or 73/863.01-863.03.cds. or 417/322,469.cds. or 118/211,696.cds. or 347/19,68,84+.cds.) and jet\$5 and (vary\$3 or chang\$3 or adjust\$3 or control\$4 or large\$2 or smalle\$2) with (fill\$3) and (impact\$3 or hammer\$3 or plung\$3 or stroke) and @PY> "2004" | US-PGPUB; USPAT | ADJ | ON | 2010/03/10 12:56 |
| S159 | 59 | S157 not S158 | USPAT; UPAD | ADJ | ON | 2010/03/10 13:09 |
| S160 | 11 | (427/595-597,592.cds. or 222/55-57,14-22,591-603.cds. or 239/435,445,4,13,128,133,134,102.2.cds. or 73/863.01-863.03.cds. or 417/322,469.cds. or 118/211,696.cds. or 347/19,68,84+.cds.) and jet\$5 and impact\$3 with (hammer\$3 or plung\$3 or stroke) | US-PGPUB; USPAT | ADJ | ON | 2010/03/10 14:16 |

3/10/2010 2:49:03 PM